

## NOTES ON ARADIDAE IN THE U.S. NATIONAL MUSEUM (HEMIPTERA) II.

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### II. Subfamily CARVENTINAE.\*

I wish to express once more my thanks to Dr. Carl J. Drake and Dr. Reece I. Sailer, through whose good offices I had the privilege to study the unidentified Aradidae in the collections of the U. S. National Museum in Washington, D. C., including the Drake Collection.

#### *CARVENTUS* Stal, 1865.

The genus *Carventus* Stal, 1865, is circumtropical. Its 21 species live mostly in the humid tropical forests. The bulk of the species belong to the Oriental and Ethiopian Regions; others penetrated to Madagascar and new Guinea. One was found in Samoa, one in Central America, and one, recently, was described from the Australian mainland. From the latter, *Carventus australis* Kormilev, 1958, were known only females, now I have an opportunity to give a brief description of the male.

#### 1. *Carventus australis* Kormilev, 1958

*Carventus australis* Kormilev, 1958 Jour. N. Y. Ent. Soc. 66: 87, figs. 1-2.

MALE. Similar to the female, but smaller. Lobes of sternum VIII are small, conical, apically rounded; hypopygium elongately cordiform.

BIOMETRICAL MEASURES: head 18:20 (in this and the following descriptions the first figure is always the length, and the second the width); antennae (1 to 4) 10:6:10:8; pronotum 25:32.5 (across the fore lobe), or 41 (across the humeri); scutellum 14:23; abdomen 63:52 (across segment IV).

MALE, total length 4.0 mm.; width of the pronotum 1.33 mm.; width of the abdomen 1.73.

ALLOTYPE: Male, Queensland, Australia—H. Hacker coll.; deposited in the U. S. National Museum, Washington, D. C., "Drake Collection."

\* See: Kormilev, N. A. Notes on Aradidae in the U.S.N.M. (Hem.) I. Subfam. Calisiinae; Proc. U.S.N.M. 109, No. 3413 pp., 209-222. (1958).

*GLYPTOCORIS* Harris & Drake, 1944.

Usinger & Matsuda, listing the species of the genus *Glyptocoris* Harris & Drake, 1944, put a question mark beside the species *G. verus* Drake, 1956 (1959:125). At the time I made the key for the *Glyptocoris* species, I could not examine this species, so it was omitted from the key (N. A. Kormilev, Notes on Neotropical Aradidae IX; Studia Entomologica, II: 309-320). Later, Dr. J. C. Drake, kindly loaned me a paratype. It is a *Glyptocoris*, though systematically it stays a little apart from other species in the genus. Wygodzinsky (1948:6) separated all species of *Glyptocoris* into two groups: with the spiracles of the anterior abdominal segments ventral, placed near the lateral margin; and in those placed on the lateral margin and visible from above. In *G. verus* the spiracles of the first three segments are ventral, placed far from the lateral margin; those of the segments V and VI sublateral but visible from above, as those of VII and VIII which are lateral.

*Glyptocoris verus* Drake is rather flat, the lateral borders of the pronotum bear two tubercles set apart, the anterior is small, the posterior is bigger; mesonotum has also two tubercles, but almost fused together, the anterior is very small, the posterior bigger, but not so big as that of the pronotum; metanotum is almost straight, only posteriorly with a very small tubercle.

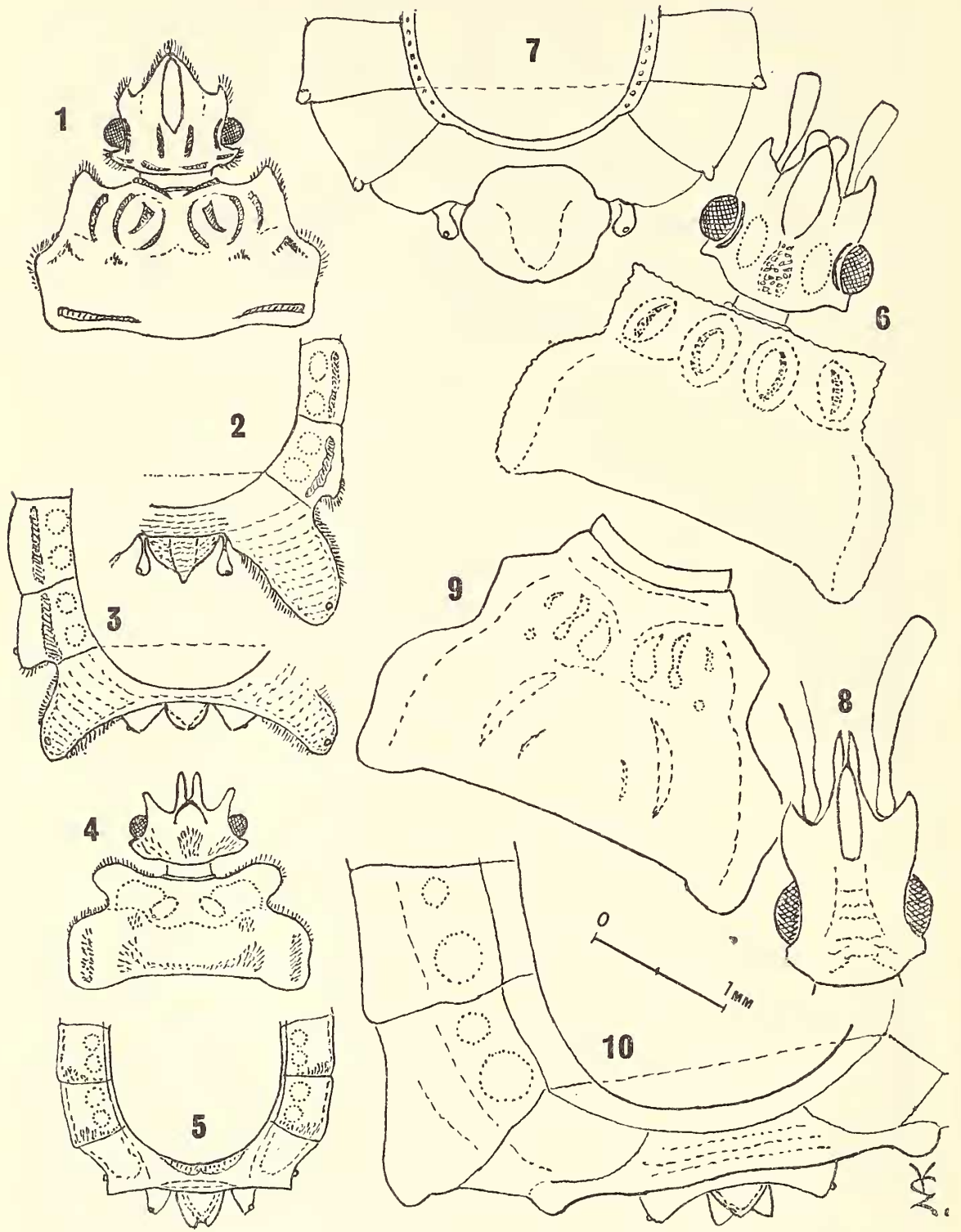
## III. Subfamily MEZIRINAE.

*NOTAPICTINUS* Usinger & Matsuda, 1959.1. *Notapictinus parvulus* new species

MALE. Small, elongately ovate, slightly widening backward, brachypterous.

HEAD. Slightly shorter than wide through the eyes (27:31). Anterior process moderately robust, anteriorly deeply notched, jugae being much longer than tylus, exteriorly rounded and granulate, reaching to 2/3 of the first antennal segment. Antenniferous tubercles stout, broad, rounded, reaching to 1/3 of the first antennal segment. Eyes relatively big, semi-globose. Postocular tubercles small, do not reach the outer margin of the eyes. Lateral shelves with two (1+1) ovate callous spots. Antennae short, less than twice as long as the head; the proportions of the antennal segments (1 to 4) are: 12:7:12:12. Rostral groove broad and shallow, open posteriorly; rostrum reaches the base of the head. The head is granulate and with short, erect bristles.

PRONOTUM. Sharply divided into two lobes, much shorter than wide





across the humery (28:54); fore lobe is narrower than the hind lobe (43:54); Collum narrow but distinct; antero-lateral angles obliquely truncate, and angularly produced sideways; lateral notch sharp, angular; fore disc with two (1+1) low, somewhat obliterated, callosities; hind disc roughly granulated; lateral borders of the hind disc straight, anteriorly flattened and produced into subangular lobes; hind border slightly convex in the middle.

**SCUTELLUM.** Half as long as wide at the base (15:30); lateral borders slightly convex and rimmed; apex rounded; disc moderately inflated and granulated, with a fine median ridge, marked only by a row of granulae,

**HEMELYTRA.** Reduced to wide, rounded pads, laterally roundly produced beyond the outer border of the mesonotum, and slightly reflexed, posteriorly do not reach the middle of the scutellum. Membrane is completely lacking, but clavus is discernible, separated from the corium by a suture.

**ABDOMEN.** Much longer than wide (90:67), with the whole tergum exposed. Tergum I is visibly separated from the metanotum and CDP (Central dorsal plate); CDP formed by tergum II to VI, fused together, flat, slightly concave and punctured; the limits between segments marked by very fine, transverse carinae; along the lateral border of CDP runs a carina bearing a row of long, erect bristles. First and second scent gland openings are distinct; callous spots are rather obsolete. Midlateral glabrous areas completely fused with the tergum. Tergum VII separated from CDP by a very fine, but distinct sulcus; disc is anteriorly granulate, posteriorly transversely rugose; laterally with a row of erect bristles. Connexivum broad, granulate, and with dispersed short, curled hairs; PE-angles (postero-exterior) of connexivum VII slightly angularly produced. Lobes of the VIII (male) short, rounded, with a lateral spiracle. Hypopygium moderate in size, posteriorly rounded, with a broad elevated median ridge. Spiracles of sternum II sublateral, placed on the high tubercles, and visible from

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#### EXPLANATION OF PLATE

FIG. 1. *Forficulassa lobulata* n. g., n. sp., male, the head and pronotum.

FIG. 2. *Forficulassa lobulata* n. g., n. sp., male, postero-lateral part of the abdomen.

FIG. 3. *Forficulassa lobulata* n. g., n. sp., female, postero-lateral part of the abdomen.

FIG. 4. *Chapadia alata* n. g., n. sp., female, the head and pronotum.

FIG. 5. *Chapadia alata* n. g., n. sp., female, posterior part of the abdomen.

FIG. 6. *Santaremia robusta* n. g., n. sp., male, the head and pronotum.

FIG. 7. *Santaremia robusta* n. g., n. sp., male, posterior part of the abdomen.

FIG. 8. *Parahesus truncatus* n. g., n. sp., female, the head.

FIG. 9. *Parahesus truncatus* n. g., n. sp., female, the pronotum.

FIG. 10. *Parahesus truncatus* n. g., n. sp., female, postero-lateral part of the abdomen.

above; those of III to V ventral, remote from the margin; those of VI sublateral, VII and VIII lateral, and visible from above.

COLOR. Ferrugineous; tergum lighter, reddish brown; antero-lateral angles of connexiva on the dorsal and ventral side, abdominal scent gland openings, rostrum and tarsi, yellow or yellow brown.

MALE. Total length 2.76 mm.; width of the pronotum .9 mm.; width of the abdomen 1.12 mm.

HOLOTYPE: Male. Barro Colorado Is., Panama, CZ—Zetek coll. VIII–IX, '49; deposited in the U. S. N. M. (No. 64819).

Usinger & Matsuda recently have split the genus *Pictinus* Stal, 1873, into five separate genera, leaving in *Pictinus* only american species with the stridulatory mechanism. For the rest of american macropterous species, previously referred to this genus, they created a new genus named *Notapictinus* Usinger & Matsuda, 1959. Besides the five species referred by them to the genus *Notapictinus* (1959:362), to the genus belong also the following species: *Pictinus martinezi* Kormilev, 1953, *Pictinus beckeri* Kormilev, 1959, *Pictinus nanus* Kormilev, 1959, *Pictinus sanmigueli* Kormilev, 1959, *Pictinus luteoincrustatus* Kormilev, 1959, *Pictinus derivatus* Kormilev, 1959, *Pictinus maculatus* Kormilev, 1959, *Pictinus rutilus* Kormilev, 1959, and from brachypterous, *Pictinus brachypterus* Drake & Kormilev, 1958.

To the true *Pictinus*, besides four species listed by Usinger & Matsuda (1959:360), belong also the following species: *Pictinus fronto* Bergroth, 1894, *Pictinus stali* Kormilev, 1959, *Pictinus pilosulus* Kormilev, 1959, *Pictinus wittmeri* Kormilev, 1959, and *Pictinus fictus* Kormilev, 1959.

### FORFICULASSA new genus

By connexivum VII in the males produced backward as big lobes, this genus resembles vaguely *Psorosoma* Champion, 1898, but belongs to the subfamily Mezirinae, and should be placed near *Banksiessa* Usinger & Matsuda, 1959. The head, and particularly the pronotum, are rather similar to this genus.

HEAD. As long as wide through the eyes; anterior process robust, conical, jugae convergent, slightly surpassing the tylus, reaching to  $\frac{1}{4}$  of the first antennal segment; antenniferous tubercles dentiform, curved inside, their tips parallel between themselves, slightly surpassing the base of the first antennal segment. Eyes small, exerted, almost globular. Postocular tubercles dentiform, directed slightly backward, do not reach the outer border of the eyes. The upper surface of the head, particularly the anterior process,



antenniferous and postocular tubercles, and vertex, are partly covered with incrustated curved hairs, sometimes glued together and forming keels or carenae. Similar carenae of glued hairs are also present on the pronotum, scutellum and connexivum. On the vertex they form two parallel, longitudinal carinae. Antennae long, more than twice as long as the head; the first segment clavate, the 2d and 3d slightly tapering to the base, the 4th fusiform; the first is the longest, the 2d half as long as the first, the third shorter than the first, but longer than the 2d, the 4th half as long as the 3d. Rostral groove is narrow, posteriorly closed; rostrum reaching to the posterior border of the latter.

**PRONOTUM.** Much shorter than wide across the humeri, divided into two lobes. Collum carinate, with erect glued hairs. Antero-lateral angles angularly produced, obliquely raised, and directed forward, covered with incrustated bristles. Fore disc with two (1+1) ovate callosities, each with an erect, oblique carina, formed by glued hairs, and with a fringe of similar hairs around them. Similar carinae of glued hairs are also on the hind disc laterally, and along the hind border. The head and pronotum are without granulation. Lateral notch is concealed by the incrustated hairs. Hind disc inflated; its lateral borders parallel between themselves, converging anteriorly; hind border slightly convex.

**SCUTELLUM.** Triangular, shorter than wide at the base; disc inflated, transversely rugose; lateral borders straight, carinate; median ridge with incrustated hairs.

**HEMELYTRA.** Reach to the hind border of tergum VII; baso-lateral borders of the corium reflexed, forming high carinae; apical border angularly cut out; apical angle produced backward beyond the base of connexivum II (the first visible). Membrane big, opaque, with anastomosed veins.

**ABDOMEN.** Much longer than wide; lateral borders subparallel between themselves, slightly convex; exterior borders of the connexiva each slightly convex, those of connexivum VI produced as small, rounded, subtriangular lobes; connexivum VII in the males form two (1+1) big, flat, posteriorly rounded lobes, produced far beyond the tip of the hypopygium, giving to the insect a curious forficuloid look. In the females these lobes are much shorter, but still produced behind the tip of segment IX. Tergum is densely punctured; laterally and on the median line smooth. Midlateral glabrous areas completely fused with the tergum. Connexivum is broad; along the outer border of connexiva runs an erect carina formed by incrustated hairs glued together. Similar carina, but lower is on the ventral side of connexivum. Hypopygium is relatively small, conical; lobes of VIII small, rounded, do not reach the tip of the hypopygium. Sternum VI in the females roundly cut out for the reception of the genital plates. Sternum III through V with a straight, slightly inflated posterior border in both sexes. Spiracles II through V ventral; those of VI lateral and visible from above; those of VII dorsal, placed near lateral margin of the lobes; those of VIII lateral and visible from above.

**LEGS.** Inermes, but with dense incrustated bristles on the femora and tibiae. Metathoracal scent gland openings triangular, placed outside of median acetabulae.

Type species: *Forficulassa lobulata* n. sp.

The big, rounded lobes of connexivum VII with the spiracles placed on the dorsal side, separate this genus from all other american *Mezirinae*.

1. *Forficulassa lobulata* n. sp.

Figs. 1-3

MALE. Head, pronotum, with exception of the hind border, antennae, and legs, are brown; the rest of the body reddish brown; rostrum, tarsi, the big round spots on the connexivum (dorsal and ventral side), and the smooth median line and borders of the tergum, are yellow or dirty yellow.

BIOMETRICAL MEASURES. Head (male—27: 27, female—27: 28); antennae male—30: 14: —:—; female—25: 15: 20: 10, the last two segments in the male are lacking); pronotum (male—30: 41 across the fore lobe, or 55 across the humeri; female—32: 42 and 56 respectively); scutellum (male—20: 30; female—21: 30); abdomen (male—88 to the tip of the hypopygium, or 100 to the tip of the lobes: 67 across segment IV; female—90 or 95 respectively: 73 across segment IV).

TOTAL LENGTH. Male—6.0, female—5.9 mm; width of the pronotum: male—1.83, female—1.87 mm.; width of the abdomen: male—2.23, female—2.83 mm.

HOLOTYPE: male, Para, Brazil—P. R. Uhler coll.; deposited in the U. S. National Museum (No. 64820).

ALLOTYPE: female, Santarem, Brazil—Acc. No. 2966; deposited in the U.S.N.M., Drake collection.

### CHAPADIA new genus

Small, elongately ovate, slightly widening backward.

HEAD. Shorter than wide through the eyes; anterior process wide and long, anteriorly deeply notched; jugae dentiform, parallel between themselves, anteriorly rounded, produced far beyond the tip of the tylus, reaching to the middle of the first antennal segment; antenniferous tubercles flat, rounded, their flat side strongly inclined, almost vertical. Antennae almost twice as long as the head; the first segment clavate, the 2d and 3d slightly tapering toward the base, the 4th fusiform; the third the longest, the second the shortest. Eyes moderate in size, exerted, semiglobose. Postocular tubercles dentiform, slightly projecting beyond the outer border of the eyes; posterior border of the head widely rounded; vertex covered with erect incrustated bristles. Rostral groove moderately wide, shallow, posteriorly closed; rostrum short, does not reach the hind border of the groove.

PRONOTUM. Half as long on the median line as wide across the humeri; collum fine, granulate; anterior border feebly cut out; antero-lateral angles produced laterad as big, rounded, slightly reflexed lobes; fore disc with two (1+1) rather obsolete, callous spots; lateral, interlobal, notch very deep, rounded; lateral borders of the hind lobe parallel between themselves,

anteriorly convergent; posterior border almost straight in the middle, slightly roundly produced laterally. Hind disc wider and higher than the fore disc, covered with irregularly dispersed erect, incrustated bristles.

**SCUTELLUM.** Subtriangular, shorter than wide at the base, apically rounded; basal and lateral borders finely rimmed; disc sharply, transversely rugose, near the base with two (1+1) transversely ovate, depressed, callous spots; median ridge thin and covered with high, erect, incrustated bristles.

**HEMELYTRA.** Reach (female) to 2/3 of tergum VII. Corium reaches beyond the base of connexivum III (the second visible), its basolateral border reflexed, slightly divergent backward; apical border angularly cut out interiorly; apical angle acute. Membrane big, opaque, almost without veins, only at the base with a few, irregularly curved veins.

**ABDOMEN.** Ovate; lateral borders slightly convex, rounded; PE-angles of connexiva II through V not produced; those of VI slightly produced; those of VII with a small, triangular, apically rounded lobe, directed back and sideways. Midlateral glabrous areas clearly visible, narrow, less than 1/3 as wide as connexivum, and separated from the tergum by a row of erect bristles; tergum VII (female) posteriorly raised and covered with dense, incrustated, erect bristles. Connexivum rather wide, posterior borders of connexiva with erect incrustated bristles. Spiracles placed on the tubercles; II through VI ventral, placed far from the outer border, but progressively approaching it, not visible from above; those of VII and VIII lateral and visible from above. Genital lobes (VIII) relatively big, triangular, almost reaching the tip of IX; IX notched on the tip, genital valves being longer than the oviduct. Metathoracal scent gland openings narrow, placed lateral and somewhat behind the median acetabulae. Posterior borders of sterna slightly elevated; this of sternum VI roundly cut out. Genital and subgenital plates, and genital lobes on the ventral side, covered with erect, incrustated bristles.

**LEGS.** Inermes; fore tibiae with a small subapical "comb" on the inner side.

Type species: *Chapadia alata* n. sp.

*Chapadia* n. g. belongs to "Phyllotingis group" of genera, with long jugae produced far beyond the tip of the tylus. It is mostly allied to *Placogenys* Usinger & Matsuda, 1959, differing from it by: deeply notched lateral sides of the pronotum, and erect, incrustated bristles on various parts of the body.

In 1955 I described a new genus, based on a new species from Peru, which was named *Diphyllonotus*. The manuscript was sent to Revista Ecuatoriana de Entomologia y Parasitologia. But the volume III, in which it was supposed to be printed, never appeared. In 1956 I published the second species of the genus named *Diphyllonotus brachypterus* Kormilev, 1956, but



the genus was not validated. In 1958, losing all hopes that my MS will be published, and not able to get it back, I redescribed the genus and sent it to the Proceedings of the Entomological Society of Washington, where it was published in vol. 61, p. 61. But in the meantime Usinger & Matsuda published this genus under the name of *Placogenys*, so we have now a new synonymy: *Placogenys brachypterus* (Kormilev), 1956, and *Placogenys explanatus* (Kormilev), 1959.

1. **Chapadia alata** n. sp.

Figs. 4-5.

**FEMALE.** Uniformly yellow brown; rostrum yellow; membrane reddish brown, at the base whitish.

**BIOMETRICAL MEASURES.** Head (19:23); antennae (10:7:11:9); pronotum (21:37, across the fore lobe, or 47, across the hind lobe); scutellum (17:24); abdomen 69:57, across segment V).

**FEMALE.** Total length 4.3 mm.; width of the pronotum 1.56 mm.; width of the abdomen 1.9 mm.

**HOLOTYPE:** female, Chapada, Brazil; deposited in the U. S. National Museum, Washington, D. C., U. S. A. (No. 64821).

**SANTAREMIA** n. g.

Elongately ovate, rather robust.

**HEAD.** Slightly shorter than wide through the eyes; anterior process robust with subparallel lateral borders, anteriorly slightly notched, reaches to the middle of the first antennal segment; antenniferous tubercles dentiform, their outer borders parallel between themselves, exteriorly slightly convex. Antennae moderately robust, twice as long as the head; the first and 3d segment subequal in length, the 2d shorter, the 4th the shortest. Eyes big, exerted, semiglobose. Postocular tubercles small, dentiform, do not reach the outer border of the eyes; vertex with short curled hairs; lateral shelves with ovate, smooth callosities. Rostral groove wide and deep, posteriorly open; rostrum slender, does not reach the hind border of the groove.

**PRONOTUM.** Shorter than wide across the humeri; sharply separated into two lobes by a very deep transverse sulcus; collum tiny, but sharply separated from the fore lobe; anterior border of the fore lobe slightly cut out; antero-lateral angles rectangular; lateral borders of the fore lobe parallel between themselves; the fore disc with a deep median sulcus; laterad of it with two (1+1) high, granulate tubercles, and farther to the lateral borders, with two (1+1) longitudinal, granulate ridges. Hind lobe is higher and wider than the fore lobe; hind disc with rough, setigerous granulation; lateral borders parallel between themselves, anteriorly convergent; hind border straight, laterally with two (1+1) very small, rounded lobes; directed backward.

SCUTELLUM. Subtriangular; basal and lateral borders rimmed; apex cut out; disc moderately inflated, transversely rugose; median ridge granulate.

HEMELYTRA. Reach to  $\frac{2}{3}$  of tergum VII (male); basolateral border of corium slightly reflexed, but not projected outside of the pronotum; apical border of the corium slightly cut out exteriorly, then convex, rounded; near the inner angle again roundly cut out. Veins of the corium with setigerous granulation, make a big loop. Membrane with anastomosed veins.

ABDOMEN. With feebly undulate sides, slightly shorter than wide, widening backward. Midlateral glabrous areas completely fused with the tergum. Connexivum II (the first visible) with the hind border strongly elevated in a form of a ridge; PE-angles of connexiva III and IV barely protruding; those of V sharply pointed and reflexed; posterior borders of connexiva V and VI slightly carinate. Tergum VII (male) is raised almost vertically in the first  $\frac{3}{4}$  of the disc, forming a semicircular plate, separated from the hind  $\frac{1}{4}$  of the disc by a carinate border. Hypopygium is very big, semiglobose, with a stout median ridge tapering backward. Genital lobes very small and short, obliquely truncate. Spiracles II through VII ventral, placed far from the outer border; those of VIII lateral and visible from above. Sterna III through V with a straight, inflate and smooth posterior border; anteriorly deeply punctured. Sternum VI widely cut out; sternum VII rugose and with a depressed tubercle in the middle of the disc.

Metathoracal scent gland openings narrow, placed laterad and behind the median acetabulae. Propleurae granulate; meso- and metapleurae sharply rugose. Legs inermes; but femora inflated, fusiform, with sharp granulation, and erect bristles on inside. Tarsi without arolia.

Type species: *Santaremia robusta* n. sp.

The new genus is allied to the genus *Aphleboderrhis* Stal, 1860, but differs from it by: membrane with anastomosed veins; midlateral glabrous areas completely fused with the tergum; the shape of pronotum, with rectangular antero-lateral angles; high transverse ridge on the hind border of connexivum II.

1. *Santaremia robusta* n. sp.

Figs. 6-7.

MALE. Ferruginous; membrane brown, at the base whitish; tarsi and the 4th antennal segment on the apical half are yellow brown.

BIOMETRICAL MEASURES Head (22:24); antennae (13:10:14:8); pronotum (26:37, across the fore lobe, or 50, across the hind lobe); scutellum (20:27); abdomen (60:62).

MALE. Total length 6.6 mm.; width of the pronotum 2.5 mm.; width of the abdomen 3.1 mm.

Holotype: Male, Santarem, Brazil—Acc. No. 2966; deposited



in the U. S. National Museum, Washington, D. C. (No. 64822).

Paratype: Male, collected with the holotype; deposited in the collection of the author.

### PARAHESUS n. g.

Elongately triangular, posteriorly truncate; head, pronotum and scutellum more, hemelytra and abdomen less, covered with short, curled, incrustated, yellow hairs; antennae and legs, with finer and less incrustated bristles. Head and pronotum with very fine, whitish incrustation.

HEAD. Much longer than wide through the eyes; anterior process porrect, bifide; jugae dentiform, much longer than the tylus, reach  $2/5$  of the first antennal segment. Antenniferous tubercles dentiform, slightly divaricating; eyes elongately ovate, slightly flattened from the sides; postocular tubercles rounded, not reaching the outer border of the eyes. Infraocular carinae lacking; vertex roughly, transversely rugose. Antennae long, moderately stout, more than twice as long as the head; the first segment long, clavate; the 2d and 3d subcylindrical, slightly tapering toward the base; the 4th elongately pyriform; the first and the 3d subequal in length; the 2d and 4th also, but much shorter than the first two. Rostral groove long, with parallel borders, rather deep, transversely rugose, posteriorly open, reaching to the hind border of the head; rostrum moderately stout, does not reach the hind border of the groove.

PRONOTUM. Subtrapezoidal, shorter than wide across the humeri; collum anteriorly cut out, occupies almost the whole anterior border of the pronotum; it is separated from the fore lobe by a deep, arcuate furrow; lateral borders of the fore lobe obtusely angulate, and reflexed; fore disc with six (3+3) longitudinal, narrow, curved, callous spots. Interlobal transverse depression is deep. Lateral borders of the hind lobe parallel between themselves, anteriorly converging; humeri slightly elevated; hind border straight, laterally protruding backward as short, rounded lobes.

SCUTELLUM. Subtriangular, shorter than wide at the base; all borders rimmed; disc inflated in the middle, roughly, transversely rugose, similar as in the genus *Miorrhynchus* Champion, 1898.

HEMELYTRA. Reaching to the middle of tergum VII (female); corium slightly produced beyond the base of connexivum II (the first visible); its baso-lateral border slightly cut out and reflexed; apical border angularly cut out; apical angle acute; veins covered with curled, incrustated hairs; membrane opaque, with anastomosed veins.

ABDOMEN (FEMALE). Longer than wide across segment VI, posteriorly truncate, so that connexiva VII are between, not behind, connexiva VI; lateral borders firstly convex, then slightly cut out; connexivum VI makes an almost right angle, apically rounded. Connexivum VII with two (1+1) small, rounded, and slightly reflexed, lobes. PE-angles rounded, slightly prominent. Genital segments similar to *Miorrhynchus*, only the lobes of VIII are relatively shorter, and segment IX also. Midlateral glabrous areas fused with the tergum. Sternites III through V with straight hind borders; sternum VI three times roundly cut out; in the middle deeper,



for reception of genital plates, laterally shallower. Spiracles from II to VII ventral, as in *Hesus* Stal, 1862; those of VIII lateral and visible from above.

Metathoracic scent gland openings placed laterad and a little behind the median acetabulae. Legs long, inermes.

Type species: *Paraheesus truncatus* n. sp.

*Paraheesus* n. g. at first sight looks like a big *Miorrhynchus*, with abdomen truncate posteriorly; in the key of Usinger & Matsuda, it runs to *Helenus* Buchanan White, 1879; its head and antennae are similar to those in *Hesus* Stal, but it cannot be placed in any one of these genera. From *Miorrhynchus* and *Helenus* it differs by much broader, and posteriorly truncate, abdomen; and position of the spiracles, which are all, but those of VIII, ventral, and not visible from above; from *Hesus* it differs by curled, incrustated hairs, subtriangular, posteriorly truncate, body, and by the position of the spiracles.

1. *Paraheesus truncatus* n. sp.

Figs. 8-10.

FEMALE. Yellow brown to reddish brown, but the whitish incrustation on the head and pronotum makes them greyish brown. Antennae, with exception of the apical half of segment IV, femora, tibiae, with exception of an antebasal yellow ring, and the outer borders of connexiva, with exception of PE-angles and a few spots on the lateral carina of the tergum, are piceous or black. Eyes, rostrum, tarsi, and round callous spots on the connexivum, are yellow or pale yellow brown.

BIOMETRICAL MEASURES... Head (33:21); antennae (27:14:26:15); pronotum (38:37, across the fore lobe, or 57, across the humeri); scutellum (23:32); abdomen (100:91, across segment VI).

FEMALE. Total length 9.85 mm.; width of the pronotum 2.85 mm.; width of the abdomen 4.55 mm.

Holotype: Female, Tumupasa, Bolivia—M. R. Lopez coll. Dec.; Mulford—Bio Exp., 1921-22. The holotype bears a label "Cinyphus det. H. G. Barber." Deposited in the U. S. National Museum, Washington, D. C. (No. 64823).

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